

PETRUSHOV, V.A., inzh.; PASHIN, M.A., red.; LIPGART, A.A., otv.red.;
AL'FEROVICH, A.G., red.; BORISOV, S.G., red.; BRISKIN, M.I., red.;
DYBOV, O.V., red.; ZIL'BERBERG, Ya.G., red.; LOZAR', A.S., red.;
LUNEV, I.S., red.; MAGAYEV, P.V., red.; PEVZNER, Ya.M., red.;
PHYADILOV, V.I., red.; RAMZYA, K.S., red.; SAMOL', G.I., red.;
SEDOVA, Ye.V., red.; TAMBUCHI, O.V., red.; KHANIN, N.S., red.;
CHAPCHAYEV, A.A., red.; CHISTOZVONOV, S.B., red.; SHKOL'NIKOV,
B.M., red.; YEGORKINA, L.I., red.izd-va; GORDEYEV, L.F., tchn.
red.

[Operational analysis of the multiplate friction transformer]
Analiz raboty mnogodiskovykh friktsionnykh transformatorov.
Moskva, Gos.nauchno-tekhn.izd-vo mashinostroitel'noi lit-ry.
1960. 79 p.(Moscow, Gosudarstvennyi nauchno-issledovatel'skii
avtomobil'nyi i avtomotorny institut [Trudy], no.90).

(MIRA 13:8)

(Motor vehicles--Transmission devices)

PASHIN, M.F., kandidat tekhnicheskikh nauk.

Inductionless condenser for capacitance pulsating voltage dividers.
Elektrichestvo no.5:82 My '57. (MLPA 10:6)
(Condensers (Electricity))

PASHIN, M. F.

PA 1111

AUTHOR: 1.) Cand. of techn. sciences, Doz. LUPKIN, D. M.
2.) Cand. of techn. sciences, POMILUYKO, N. S. and Doz. SHLYAKHTO, P. N.
3.) Cand. of techn. sciences, PASHIN, M. F.

TITLE: 1.) Inductionfree Condensers for a Capacity Dividor of Impulse Voltage.
Benzinduktsionnyy kondensator klya yemkostnogo delitelya impul'snykh napryazheniy. Russian).
2.) Ways and Means of Improving Train Motors.
(Puti uluchsheniya tyagovykh dvigateley postoyannogo toka. Russian).

PERIODICAL: Elektrichestvo, 1957, Nr 5, pp 81 - 82 (U.S.S.R.)
Received: 6 / 1957 Reviewed 7 / 1957

ABSTRACT: 1.) Concerns the article in Elektrichestvo, 1955, Nr 9. A number of mistakes are printed out.
2.) Is the answer of the author of the article which was criticized to by Lupkin. Lupkin's criticisms are refuted.
3.) A special condensor with an additional pair of potential installations, which is connected to the oscillograph, is proposed and described. The potential installations make it possible to get ried of the parasitic EMK of selfinduction which arises

Card 1/2

621.316.722.4.027.7
3794. VOLTAGE DIVIDER FOR A LARGE SURGE VOLT-
AGE GENERATOR. M.F. Pashin.

Elektricheskoye, 1956, No. 5, 10-31. In Russian.

The main problem in the design of the voltage divider is to render it as independent as possible of extraneous fields, corona effects, etc. This requires that its resistance should be a minimum, particularly for very high voltages. The latter requirement, however, increases the current passing through the divider to such an extent that the direct connection of measuring instruments to the divider becomes impossible owing to the stray inductances of the circuit elements and there is a danger of the measurements becoming vitiated. The measuring instruments must therefore be connected through a shunt. A divider based on this principle, the calculation of whose main elements is explained, was actually built for a 6 MV generator. Oscillograms of surge waves obtained with this divider and a capacitive divider of the usual type are compared, to the great advantage of the new type which is actually independent of extraneous fields and corona as well as of any frequency-dependent effects of capacitors.

B.F. Kraus

All-Union Electrotech. Inst. in Leningrad

PASHIN, M.F., kandidat tekhnicheskikh nauk.

Chopped wave tests. Elektrichestvo no.9:89-90 S '56. (MLRA 9:11)
(Oscillators, Electric)

LEVKOYEV, I. I.; SVESHEDEKOV, N. N.; BARVYL', N. S.; PASHIN, M. P.

Benzothiazole Derivatives

Some derivatives of benzothiazole. Part 3.
2, 5, 6, and 2, 6, 7-trimethylbenzothiazoles.
Zhur. ob. khim. 22(84) no. 3, March 1952.
Vsesoyuznyy Nauchno-Issledovatel'skiy
Kino-Fotoinstitut

SO: Monthly List of Russian Accessions, Library of Congress, August ²1953, Uncl.

PASHIN, N.

Meat processing plant on wheels. Znan. sila 35 no. 12:7 D '60.
(MIRA 13:12)

(Meat industry)

PASHIN, N.

Tires are changing their "dress." Znan.sila 35 no.7:41 J1
'60. (MIRA 13:7)

(Automobiles--Tires)

PASHIN, N.

Made from sawdust and wood shavings. Znan.sila 35 no.6:26-27
Je '60. (MIRA 13:7)
(Hardboard)

PAS IN, N.

Asphalt

Asphalt concrete. Znan. s. l. a. n. , m. , 1952.

MONTHLY LIST OF RUSSIAN WEAPONS, 1952, p. 1, 52. 1952, 1952.

BUDEKA, Yu.F.; GUREVICH, I.G.; MATUSEVICH, L.A.; PASHINA, N.M.

Electric conductivity and pH of the equilibrium of carbonate-
bicarbonate electrolytes. Elektrokimiia 1 no.7:874-876 J1 '65.
(MIRA 18:19)

1. Institut teplo- i massookhmen AN BSSR.

PASHIN, P.

USSR

ON PHYSICAL FEATURES, PROPERTY OF THE SOIL

SOURCE: M: SOVEISKIY AZERBAIDZHAN. ABSTRACTED IN USAF "TREASURE ISLAND" REPORT NO. 1
24837, ON FILE IN LIBRARY OF CONGRESS, AIR INFORMATION DIVISION

PASHIN, P.

USSR

"Physical Features, Property of Soil" Sovetskiy Azerbaydzhan

SOURCE: M: Sovetskiy Azerbaydzhan
Abstracted in USAF "Treasure Island" Report No. 24837, on file in Library of
Congress, Air Information Division.

1. PASHIN, V.
2. USSR (600)
4. ZHUYKOV, G. G.
7. Book about accounting in animal husbandry ("Accounting for communal animal husbandry on collective farms." G. G. Zhuykov. Reviewed by V. Pashin). Kolkh. proizvod., 13, No. 1, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April, 1953, Uncl.

ANDRYUSHCHENKO, O.N.; PASHIN, V.I.; DUNKE, N.A.

Natural conditions in fish hatcheries of White Russia. Trudy Biol.
sta. na oz. Naroch' no.1:37-53 '58. (MIRA 12:7)
(White Russia--Fish ponds)

LOZOVY, D.A., kand. tekhn. nauk; PASHIN, V.D., inzh.; TRUSHIN, Yu.M., inzh.

Working frozen ground with rotary excavators in the Main
Administration for Industrial Construction in the Volga Area.
Mekh. stroi. 20 no.9:17 S '63. (MIRA 16:10)

(Frozen ground)
(Excavating machinery)

ZAYTSEV, Nikolay Alekseyevich; MASHKIN, Aleksandr Isankovich;
PASHIN, V.M., inzh., retsenzent; KHEMFETS, L.L., inzh.,
retsenzent; BUSKOVA, A.I., red.

[Soviet ships on underwater wings] Otechestvennye suda na
podvodnykh kryl'iyakh. Leningrad, Sudostroenie, 1964. 206 s.
(NI A 17:10)

L 56026-65 EWT(d)/EWT(m)/FA/FA(b)/T-2/EWA(w)
ACCESSION NR: AP5014680

UI/0229/65/000/003/0001/0003
629.12.039

AUTHOR: Pashin, V. M. (Candidate of technical sciences)

13
8

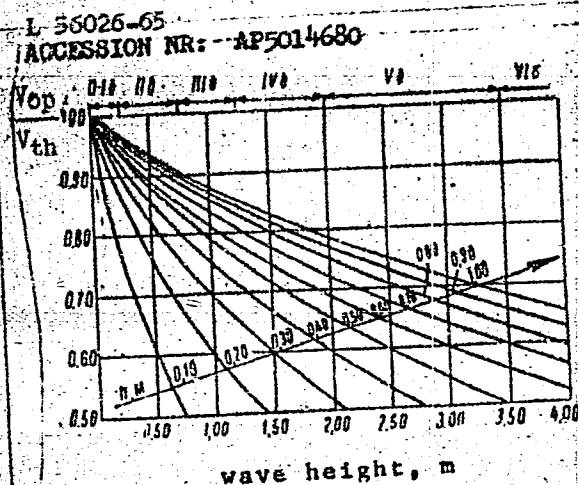
TITLE: Operating costs of air cushion vessels

SOURCE: Sudostroyeniye, no. 3, 1965, 1-3

TOPIC TAGS: shipbuilding engineering, hydrofoil craft, marine equipment

ABSTRACT: Economy is considered to be an important factor in the use of passenger air cushion vessels (ACV), particularly in their employment for high-speed sea transportation. A recently published Soviet article yields useful information on this subject and makes an interesting comparison between the ACV and the hydrofoil. Performance data of ACV's under various operating conditions were used as a basis for determining the effect of waves on speed when hovering at between 0.10 and 1.0 m (see Fig. 1). Operating costs

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were estimated for vessels in service on the Black Sea for 214 days per year, under sea conditions causing an actual speed loss of not more than 35—40%. It was found that the most economical speed varies with the hovering height, the size of the ACV, and its passenger capacity (see Figs. 2, 3, and 4.)

Card 2/9

L 56026-65
ACCESSION NR: AP5014680

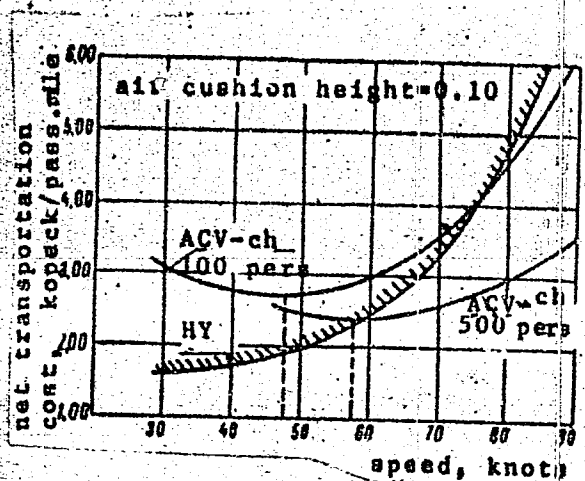


Fig. 2. Net operating costs for chamber-type (ch) ACV's and for hydrofoils (HY)

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L 56026-65
ACCESSION NR: AP5014680

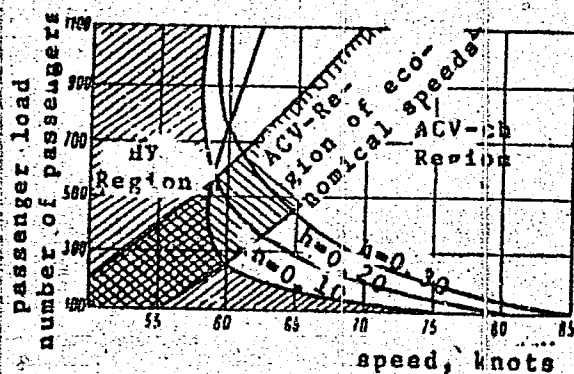


Fig. 1. Ranges of economic application of ACV-ch and HY

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L 56026-65

ACCESSION NR: AP5014680

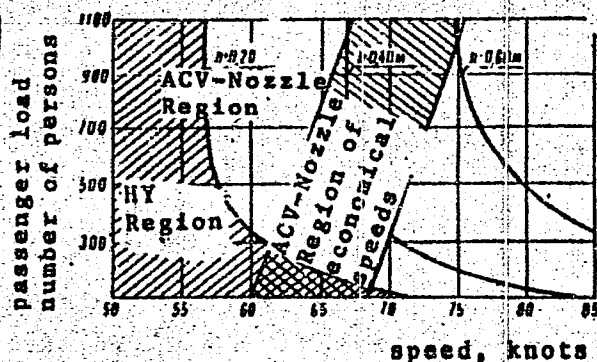


Fig. 4. Ranges of economic application of ACV-Nozzle and HY

The power input required increases with an increase in hovering height h . An increase in the ACV's size requires a lower proportional increment of power input to overcome the resistance to forward motion; therefore, the economically optimal speed increases.

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ACCESSION NR: AP5014680

Estimated transportation costs at various hovering heights, plotted against the passenger capacity (Figs 5 and 6); show that at heights of up to

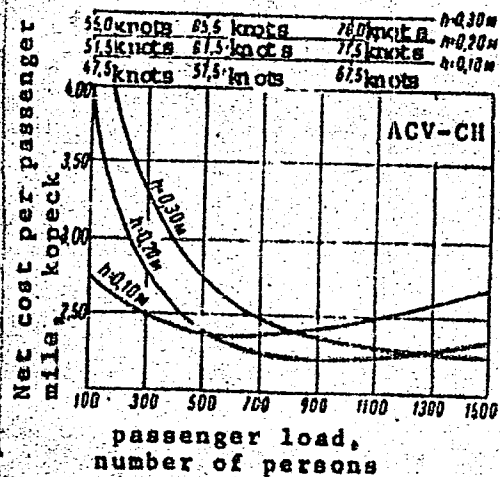


Fig. 5. The dependance of of net transportation cost on the passenger load at optimum speeds

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L 56026-65

ACCESSION NR: AP5014680

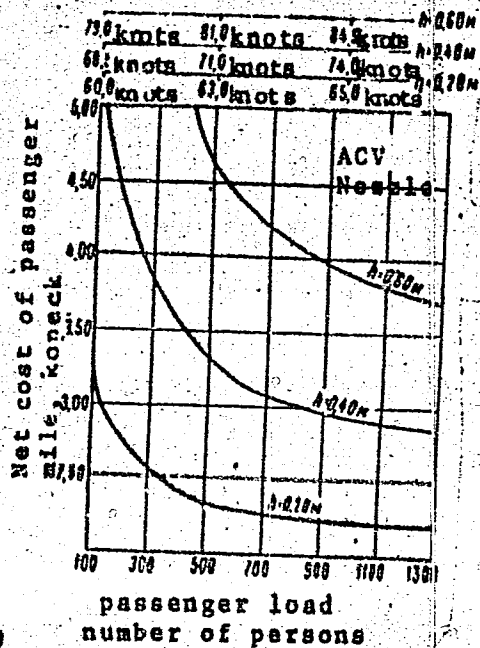


Fig. 6. The dependence of net transportation cost on the passenger load at optimum speeds

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L 56026-65

ACCESSION NR: AP5014680

0.20 m the net transportation cost can decrease by 1.5—2 times for a 400—500 passenger vessel. The advantages of increasing an ACV's size are greater at 0.20—0.30-m hovering heights than at lower heights, since the major portion of the total power is required for hovering. This ratio decreases with increased ACV size per unit weight.

Chamber-system ACV's in larger sizes, required when carrying more than 600—700 passengers, show increased net transportation costs at low hovering heights (see Fig. 5). This is due to increased water resistance, which becomes a significant factor affecting the total power required.

A sharp increase in weight can unfavorably affect operating costs. At 0.20—0.30-m hovering heights, this could occur if weight were increased to over 500—600 tons.

Along with ACV's, hydrofoil vessels develop very high speeds. Their operating cost is compared in this article with chamber-system ACV's (see Figs. 2 and 3) and nozzle-system ACV's (see Fig. 4). From the graphs contained herein, the economical operating range for ACV's and hydrofoils

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L 56026-65

ACCESSION NR: AP5014680

can be ascertained. It is concluded that hydrofoils are more economical with relatively low passenger loads and at low speed. With more than 200—300 passengers and at speeds over 60 knots, air cushion vessels are more economical. Orig. art. has 6 graphs.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: NS

NO REF SOV: 001

OTHER: 003

ATD PRESS: 4027-F

Card 5/9

PASHIN, V.M., inzh.

Fields of efficient use of hydrofoil boats and ground-
cushion vessels. Sudostroenie 30 no.5:5-6 My '64.
(MIRA 17:)

PASHIN, V.M., inzh.

Calculating fuel supplies and the sailing distance of high-speed
ships on underwater wings. Suizostroenie 30 no.2:12-14 r. 1964.
(MIRA 17:4)

PASHIN, V.N.

~~Attachment for spectroscopic projectors designed for marking lines~~
on the spectrogram. Zav.lab. 21 no.3:368 '55. (MLRA 8:6)

1. Donetskly industrial'nyy institut.
(Spectroscope)

PASHIN, V. M.

PASHIN, V. M.

Creative plans of ... normative builders. See ...
... 1935 Mr ... RDA 17:60

... Direktor Kolimenn ...
... (name)

PASHIN, V.N.

Structure of the central offices of technological information
of the national economic councils. (The discussion should not
be considered closed.) NTI no.12:5 '64. (MIRA 18:3)

PASHIN, Yu., inzh.

Causes of inaccuracies in hydraulic systems of tractor-driven machinery. Tekh. v sel'khoz. 20 no.6:72-73 Je '60. (MIRA 13:10)

1. Saratovskiy institut mekhanizatsii sel'skogo khozyaystva imeni Kalinina.

(Agricultural machinery--Hydraulic equipment)

MITIN, B.A.; PASHIN, Yu.D.; KOLEVATOV, V.N.; LOZOVSKIY, V.N.

Exchange of experience. Zav.lab. 28 no.10:1259-1261 '62.
(MIRA 15:10)

1. Chelyabinskiy politekhnicheskiy institut(for Mitin).
2. Saratovskiy institut mekhanizatsii sel'skogo khozyaystva imeni Kalinina(for Pashin).
3. Ural'skiy Filial AN SSSR(for KolevatoV).
(Testing machines)

PASHIN, Yu.D.

Improved method of lubricant feeding in abrasion wear testing. Zav.
lab. 26 no.3:377-378 '60. (MIRA 13:6)
(Materials--Testing) (Abrasion)

28(5)

SOV/32-25-7-35/50

AUTHOR:

Pashin, Yu. D.

TITLE:

Determination of the Abrasion of Samples Without Taking Them off the Abrasion Machine (Opredeleniye iznosa obraztsov bez snyatiya ikh s mashiny treniya)

PERIODICAL:

Zavodskaya laboratoriya, 1959, Vol 25, Nr 7, p 877 (USSR)

ABSTRACT:

A method was worked out for the determination of the abrasion of rollers; the latter need to be taken off the abrasion machine (e.g. MI and similar ones) because a special device is provided (Fig 1). In principle, the device is the support of a bench lathe which can move along the roller and is fastened to the machine. A bolt with the measuring instrument - a minimeter or micron indicator - is fastened to the upper part of the support. The roller is abraded by an axle bearing. The axle bearing is somewhat narrower than the roller so that a stripe appears. The difference between the non-abraded edge of the roller and the stripe abraded by the axle bearing and thus the abrasion of the roller (Fig 2) is determined by means of measuring instruments. In the experiments under discussion the load of the sample was 4 kg/cm^2 . There are

Card 1/2

SOV/32-25-7-35/60
Determination of the Abrasion of Samples Without Taking Them off the Abrasion Machine

2 figures.

ASSOCIATION: Saratovskiy institut mekhanizatsii sel'skogo khozyaystva im.
M. I. Kalinina (Saratov Institute of Mechanization of
Agriculture imeni M. I. Kalinin)

Card 2/2

AUTHOR:

Pashin, Yu. D.S/032/60/036/03/056/064
B010/B117

TITLE:

An Improved Method of Addition of a Lubricant for Wear Tests

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol 36, Nr 3, pp 377-378 (USSR)

TEXT: The methods of supplying lubricants actually used for friction tests show several shortcomings. If the lubricant is, for instance, supplied by circulation or spraying, abrasive particles often fall on the friction surface of the sample together with the lubricant, are pulverized, lose their shape and, thus, also their abrasive properties. On the other hand, the abrasion products cannot be removed from the lubricant, and are deposited in the duct and the container of the lubricant. For this reason, a special attachment for friction machines was designed (Fig) which is free of these shortcomings. It is, in principle, a container with a stirrer where the lubricant is thoroughly mixed with the abrasive. The suspension flows through a trough onto the sample, is distributed there, and flows then into a container. There is 1 figure.

Card 1/1

PASHIN, Yu.D.

Determining wear of test parts without removing them from the friction machine. Zav.lab. 25 no.7:877 '59. (MIRA 12:10)

1. Saratovskiy institut mekhanizatsii sel'skogo khozyaystva
im. M.I.Kalinina.
(Materials--Testing)

VYDRIN, N.V., inzh.; PASHIN, Yu.F., inzh.; SERGEYEV, V.D., inzh.

Standardized railway cranes. Stroi. i dor. mash. 7 no.9:1-4 S '62.
(MIRA 15:10)

(Cranes, derricks, etc.)

PASHIN, Yu. N. Cand Phys-Math Sci -- "Study of a regenerated ^{Модель} ~~vibration~~ system with periodically varying parameters." Mos, 1961 (Mos State Ped Inst im V. I. Lenin). (KL, 4-61, 184)

68030

~~9(1)~~ 9.1200

SOV/155-58-6-32/36

AUTHORS: Brandt, A.A. Pashin, Yu.N., Petelin, V.G.

TITLE: Investigation of the Focusing Properties of a Zone Antenna²⁵ in the Range of Microwaves

PERIODICAL: Nauchnyye doklady vysshey shkoly. Fiziko-matematicheskkiye nauki, 1958, Nr 6, pp 201-207 (USSR)

ABSTRACT: In the paper the authors report on the results of an experimental investigation of the focusing properties of a zone or diffraction antenna. The antenna is produced of metallic as well as of dielectric zones which are calculated on the basis of the laws of geometric optics. The investigations were carried out with the wave length of 3 cm and show that the considered antenna possesses good focusing properties and can be applied for practical purposes. Contrary to the parabolic antenna the zone antenna has a selective effect; in its focus it concentrates the monochromatic component of the "white" radiation falling upon it.

Card 1/2

68030

Investigation of the Focusing Properties of a Zone Antenna in the Range of Microwaves SOV/155-53-6-32/36

There are 6 Soviet references.

ASSOCIATION: Moskovskiy gosudarstvenny universitet imeni M.V. Lomonosova
(Moscow State University imeni M.V. Lomonosov)

SUBMITTED: September 28, 1958

Card 2/2

PASHIN, Yu.N.

Resonance phenomena in an oscillating system with periodically
changing regeneration. Nauch.dokl.vys.shkoly; radiotekh. i elektron.
no.2:84-88 ' 58. (MIRA 12:1)

1. Kafedra teorii kolebaniy fizicheskogo fakul'teta Moskovskogo
gosudarstvennogo universiteta.
(Oscillations, Electric) (Resonance)

ACC NR: AP6027246

SOURCE CODE: UR/0109/66/011/008/1528/1530

AUTHOR: Pashin, Yu. N.; Khilov, Yu. K.; Etkin, V. S.

ORG: none

TITLE: Noise in semiconductor diodes under pulsed conditions

SOURCE: Radiotekhnika i elektronika, v. 11, no. 8, 1528-1530

TOPIC TAGS: semiconductor diode, diode noise, SHF

ABSTRACT: An excess (over thermal) noise radiation was discovered during an experimental investigation of the intrinsic noise of diodes operating under pulsed conditions in the SHF band. A negative square pulse (10--20-nsec rise time) was applied to a forward-biased diode. It was found that the excess noise radiation depends on the switching-pulse amplitude, pulse-rise time, diode-base thickness, and frequency. The cause of this excess noise is seen in a short-time avalanche occurring in the diode, a sort of "dynamic breakdown". This explanation of the excess-noise nature is detailed. Orig. art. has: 1 figure and 1 table.

SUB CODE: 09 / SUBM DATE: 10Nov65 / ORIG REF: 006 / OTH REF: 007

Card 1/1

UDC: 621.382.2.018.750

PASHINA, G.V.

Deciduous forests in the western Tien Shan. Vestsi AN BSSR Ser.
nav. no. 4:140-142 '58. (MIRA 12:4)
(Tien Shan--Forests and forestry)

IVANOVA, Ye.V.; PASHINA, G.V.

Knotweed Polygonum Weyrichii, a new forage and silage plant. Sbor.
nauch.rab.Bel.otd.VBO no.1:32-36 '59. (MIRA 14:4)
(Knotweed)

PASHINA, G.V.

Leafless iris (Iris aphylla L.), a rare plant in the White
Russian S.S.R. Sbor. nauch. rab. TSBS no.2:217-219 '61.
(MIRA 15:7)
(White Russia—Iris (Plant))

PASHINA, G.V.

Ecology of the azalea *Rhododendron luteum* in the White Russian
S.S.R. Sbor. nauch. rab. TSBS no.2:207-210 '61. (MIRA 15:7)
(White Russia--Rhododendron)

LAZAR, N.Y.; SHAR, N.Y.; ...
LAZAR, N.Y.; ...

Results of ...
no. 219-9-13 MR-A ...

1. Leningradskiy ...
mikrobiologii ...
sanitaro-epidemiologii ...
klinik.

PASHINA, M.G.

Malaria Conference in Belgrade. Med.Paraz. i paraz.bol. 26 no.1:
125-126 Ja-J '57. (MLRA 10:6)
(MALARIA--PREVENTION)

PASHINA, Nat.

Pan type cotton loader. Tekh. mol. 28 no. 12:23 '60.
(Cotton machinery) (MIRA 13:12)
(Loading and unloading)

PASHINA, Nat.

Mechanical athlete. Tekh.mol. 29 no.4:18 Ap '61. (MIRA 1445)
(Pipe bending)

PASHINA, Nat.

At the front of your house. Tekh.mol. 28 no.9:17 '60. (MEA 13:10)
(Cranes, derricks, etc.)

L 62794-65

Pr-4/Pu-4

ACCESSION NR: AF5016*56

EMI(1)/EPF(c)/FSS-2/REC(k)-2/EPF(n)-2/EMQ(m)/T-2/RED-2 Pr-6/

UR/0364/65/001/007/0874/0876
541.136

AUTHOR: Budeka, Yu. F.; Gurevich, I. G.; Matusovich, L. A.; Pashina, N. M.

46
45
13

TITLE: Electrical conductivity and pH of an equilibrium carbonatebicarbonate electrolyte.

SOURCE: Elektrokhimiya, v. 1, no. 7, 1965, 874-876

TOPIC TAGS: electric conductivity, carbonate, fuel cell 29

ABSTRACT: The article presents the results of measurements of pH and electrical conductivity, two very important characteristics of the equilibrium electrolyte for use in fuel cells with organic fuels. Electrolyte solutions were prepared from K_2CO_3 and $KHCO_3$, dissolved in distilled water. CO_2 was passed through the solution until equilibrium was reached. The equilibrium concentration of carbonate and bicarbonate was determined by titration. The accuracy of analysis was $\pm 3.3\%$ for carbonate and $\pm 1.5\%$ for bicarbonate. A Kohlrausch bridge was used for the measurement of the electrical conductivity. In the experiments a ZG-10 audio frequency generator was used. The working frequency was 1500 cps. An EO-6M oscillograph was used as null indicator. The temperature of the thermostat in which the electrolytic cell

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L 62794-65

ACCESSION NR: AP5018456

was placed was maintained constant with accuracy of $\pm 0.02^{\circ}$ C. A glass electrode was used for pH measurement. The electrical conductivity and pH were measured in the 70 - 90 $^{\circ}$ C range. The results of measurements are shown in Fig. 1 and Fig. 2 of the Enclosure. The pH values of equilibrium electrolyte were within the 8.5 - 9.0 range. The pH of solutions changes very little with increase of temperature. Orig. art. has: 1 table and 2 figures.

ASSOCIATION: Institut teplo- i massoobmena Akademii nauk BSSR (Institute of Heat and Mass Exchange, Academy of Sciences Belorussian SSR)

SUBMITTED: 22Jan65

ENCL: 02

SUB CODE: EM, GC

NO REF SOV: 003

OTHER: 002

Card 2/4

L 62794-65
ACCESSION NR: AP5018456

ENCLOSURE: 01

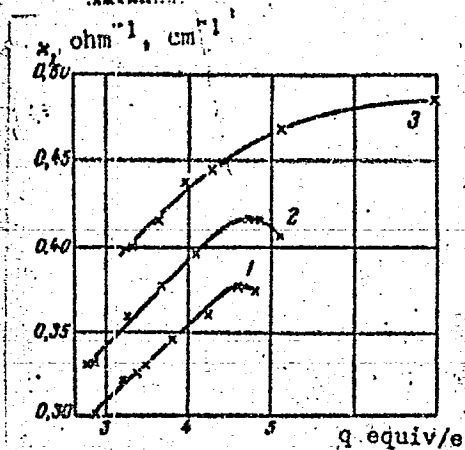


Fig. 1. Specific conductance of the equilibrium electrolyte as a function of the total concentration at different temperatures: 1--70° C, 2--30° C, 3--90° C.

Card 3/4

L. 62794-65

ACCESSION NR: AF5018456

ENCLOSURE: 02

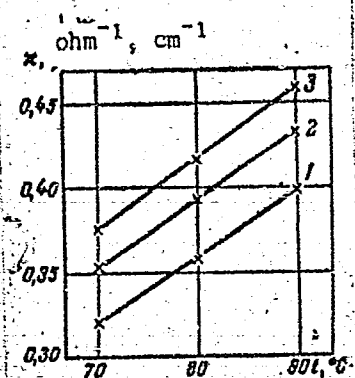


Fig. 2. Specific conductance of the equilibrium electrolyte as a function of temperature at different concentrations: 1--3.3 g equiv/l; 2--4.0 g equiv/l; 3--4.8 g equiv/l.

Card

4/4

USSR/Soil Science. Biology of Soils.

J-2

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24699.

Author : Skoropanov, S.G.; Talanova, K.S.; Shabunina, M.M.;
Pashina, T.N.

Inst :
Title : On the Fertility of Separate Fields Under Crop
Rotation.

Orig Pub: Tr. Belorussk. n.-i. in-ta melior. i vodn. kh-va,
1956, 7, 182-205.

Abstract: Work was conducted on cultivated peat-bog soils
of the Kossov experimental station. In the opinion
of the authors, the basic indices of the fertility
of soils are their biological properties and the
content of their nutrient substances. The maximum
quantity of microorganisms, up to 8.7-16 million

Card : 1/3

PASHINA, T. N.

SKOROPANOV, S.G.; TALANOVA, K.S., kandidat sel'skokhozyaystvennykh nauk.
SHABUNINA, M.M., kandidat sel'skokhozyaystvennykh nauk; PASHINA,
T.N., mladshiy nauchnyy sotrudnik.

Fertility of separate fields under crop rotation. Trudy Inst.mel.,
vod.i bol.khoz.AN BSSR 7:182-205 '56. (MLRA 10:5)

1.Chlen-korrespondent AN BSSR (for Skoropanov)
(Soil fertility) (Rotation of crops)

YANSON, A.I.; PASHINA, V.P.

Physicomechanical properties of SP-3 and SP-1 make particle
boards. Bum.1 der.prom. no.4:35-39 O-D '62. (MIRA 15:12)

1. L'vovskiy lesotekhnicheskii institut.
(Hardboard—Testing)

PASHINA, V.P., kandidat tekhnicheskikh nauk.

Physical and mechanical properties of beech veneers. Der.prom.
5 no.3:10-11 Mr '56. (MLRA 9:7)

L'vovskiy lesotekhnicheskii institut.
(Veneers and veneering)

PASHINA, V.P., kandidat tekhnicheskikh nauk; OTLIVANCHIK, A.N., kandidat tekhnicheskikh nauk; YANSON, E.R., kandidat tekhnicheskikh nauk.

A useful book. ("Chemistry and technology of adhesives." A.G. Zabrodin, Reviewed by V.P. Pashina, A.N. Otlivanchik, E.R. Ianson). Der.prom. 5 no.2:25 # '56. (MLRA 9:5)

1. L'vovskiy lesotekhnicheskii institut (for Pashina, Yanson);
2. Tsentral'nyy nauchno-issledovatel'skiy institut mekhanicheskoy obrabotki drevesiny (for Otlivanchik).
(Zabrodin, A.G.) (Adhesives)

PASHINA, V.P., kandidat tekhnicheskikh nauk; OTLIVANCHIK, A.N., kandidat tekhnicheskikh nauk; YANSON, E.R., kandidat tekhnicheskikh nauk.

A useful book. ("Chemistry and technology of adhesives." A.G. Zabrodin. Reviewed by V.P. Pashina, A.N. Otlivanchik, E.R. Yanson). Der.prom. 5 no.2:25 P. 56. (MLRA 9:5)

SMOS

1. L'vovskiy lesotekhnicheskiiy institut (for Pashina, Yanson);
2. Tsentral'nyy nauchno-issledovatel'skiy institut mekhanicheskoy obrabotki drevesiny (for Otlivanchik).
(Zabrodin, A.G.) (Adhesives)

KOVAL'CHUK, G.K. [Koval'chuk, H.K.], kand.tekhn.nauk; MOSKALENKO, N.F.,
starshiy nauchnyy sotrudnik; LIMANSKIY, V.V. [Lymans'kyi, V.V.],
starshiy nauchnyy sotrudnik; PARSHINA, Z.S. [Parshyna, Z.S.],
inzh.

Use of biomycline for the preservation of fresh fish. Khar.
prom. no.1:58-63 Ja-Mr '62. (MIRA 15:8)

1. Azovsko-Chernomorskiy nauchno-issledovatel'skiy institut
morskogo rybnogo khozyaystva i okeanografii.
(Chlortetracycline) (Fishery products—Preservation)

L 38459-66 EWT(m)/EWP(t)/ETI IJP(c) RDW/JD

ACC NR: AP6023911

SOURCE CODE: UR/0363/66/002/007/1186/1189

AUTHOR: Karakhanova, M. I.; Pashinkin, A. S.; Novoselova, A. V.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Phase diagram of tin¹-selenium² system

SOURCE: AN SSSR. Izv. Neorg materialy, v. 2, no. 7, 1966, 1186-1189

TOPIC TAGS: tin selenium ~~system~~, ~~tin-selenium~~ alloy, alloy phase ~~composition~~, alloy ~~property~~ *composition*

ABSTRACT: Phase equilibrium in tin-selenium alloys with a selenium content varying from 40 to 100 at% has been studied with the use of thermal and x-ray diffraction analysis. Alloys were prepared by melting 0-1 tin (GOST 860-60)⁴ and rectifier-grade selenium (GOST 6738-53)⁴ in a quartz ampoule under a pressure of 10^{-3} — 10^{-4} mm Hg. The phase diagram of the Sn-Se system (see Fig. 1), plotted on the basis of the obtained data, is characterized by the presence of two compounds: tin monoselenide (melting point, 880C) and tin diselenide (melting point, 675C). An Sn-Se eutectic

Cord 1/2

UDC: 546.811+546.23

L 38459-66

ACC NR: AP6023911

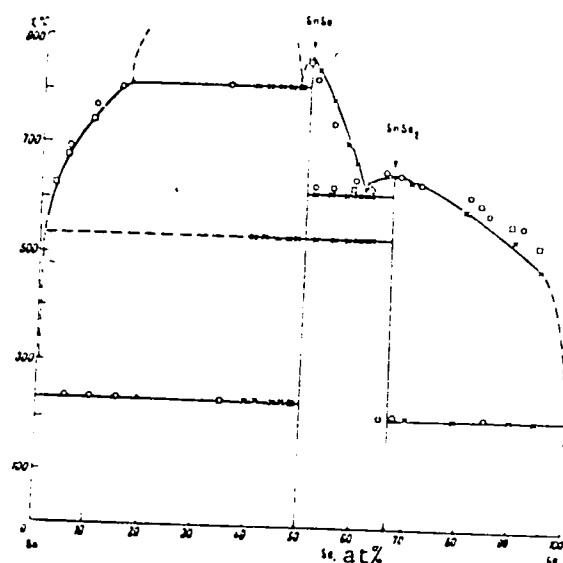


Fig. 1. Phase diagram of Sn-Se system

is formed from tin diselenide at 625C (61 at% Se). The solidus line was determined for alloys containing 50—60 at% Se. The existence of tin sesquiselenide was not confirmed. Orig. art. has: 2 figures and 1 table.

SUB CODE: 11/ SUBM DATE: 19Aug65/ ORIG REF: 007/ OTH REF: 007/ ATD PRESS: [AZ]

Card 2/2 MLP

5043

PASHININ, M. M.
USSR/Jet-Propelled Aircraft
Bibliography

2302.0112

Feb 1948

"Books About Jet-Propelled Engines and Airplanes," A. Zhabrov, 1½ pp

"Za Oboronu" Vol XXIV, No 2

Reviews six recent books on jet propulsion, first three for popular consumption: "Faster than Sound (Jet-Propelled Engines," S. M. Il'yashenko, 1947; "Modern Aviation and Its Future," B. T. Goroshchenko, 1947; and "Certain Characteristics of Jet-Propelled Airplanes," V. I. Bolotnikov, 1946. Three other books, for more advanced readers, give detailed scientific explanation of development and operation of jet engines, excluding recent developments still held secret: "Jet-Propelled Engines in Aviation," N. V. Inozemtsev, 1946; "Jet-Propelled Engines and Airplanes of England," M. M. Pashinin, 1946; "Jet-Propelled Engines, Their Development and Application," A. Ye. Primenko, 1947.

16610

LC

BELYAKOV, V.D.; KOLCHENKO, M.A.; LUTCHAK, V.M.; KASHININ, V.M.

Correlations between the general and specific immunity of a
resensitization of the organism and the production of im-
mune proteins in polyvalent immunization. Dokl. Akad. Nauk
Sov. SSSR, 1964, 199: 1-3.

V. Voprosy razvitiya i funktsii imuniteta. Izdat.
Meditsina, Leningrad.

ZAKHARENKO, S.V.; LAVRENT'YEV, N.I.; MILEVSKIY, Ye.I.; PASHININ, P.M.

Study of the effect of chloramphenicol on bacteriophage.
Antibiotiki 7 no.4:309-311 Ap '62. (MIRA 15:3)

1. Kafedra mikrobiologii i biokhimii Voenno-meditsinskoy
ordena Lenina akademii imeni S.M. Kirova.
(CHLOROMYCETIN) (BACTERIOPHAGE)

PASHININ, P.M.

Method for determining C-reactive protein. Lab. delo 7 no.5:3-8
My '61. (MIRA 14:5)

1. Kafedra mikrobiologii (nachal'nik - prof. A.A.Sinit'skiy)
Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova.
(BLOOD PROTEINS)

SLEPTSOV, A.P., dotsent; PASHININ, P.M.

Significance of the determination of C-reactive protein in the blood
in some childrens' diseases. Vop. okh. mat. i det. 6 no.5:49-54 My
'61. (M.I.A 14:10)

1. Iz kliniki detskikh bolezney (nachal'nik - deystvitel'nyy chlen
AMN SSSR prof. M.S.Maslov) i kafedry mikrobiologii (nachal'nik -
prof. A.A.Sinitskiy) Voenno-meditsinskoy ordena Lenina akademii
imeni S.M.Kirova.
(BLOOD PROTEINS) (CHILDREN--DISEASES)

IVANOV, A.I.; PASHININ, P.M.

C-reactive protein in patients with scarlet fever. *Pediatrila*
42 no.1:47-48 Ja'63. (MIRA 16:10)

1. Iz kafedry infektsionnykh bolezney (nachal'nik - prof.
P.A.Alisov) i kafedry mikrobiologii (nachal'nik - prof.A.A.
Sinit'skiy) Voenno-meditsinskoy ordena Lenina akademii imeni
S.M.Kirova.

(SCARLET FEVER) (BLOOD PROTEINS)

KALMYKOV, K.N.; PASHININ, P.M. (Leningrad)

Possibilities of the determination of C-reactive protein in the blood of cadavers. Arkh. pat. 27 no.9:68-69 '65.

(MIRA 18:12)

1. Kafedra sudebnoy meditsiny (nachal'nik A.R. Den'kovskiy) i kafedra mikrobiologii (nachal'nik - prof. A.A. Sinitskiy) Voenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova. Submitted October 23, 1964.

SHMERLING, L.A.; PASHININ, P.M.

Determination of C-reactive proteins in Botkin's disease. Zhur.
mikrobiol.epid.i immun. 32 no.3:54-60 Mr '61. (MIRA 14:6)

1. Iz Instituta eksperimental'noy biologii i meditsiny Sibirskogo
otdeleniya AN SSSR i kafedry mikrobiologii Voenno-meditsinskoy
ordena Lenina akademii imeni Kirova.

(HEPATITIS, INFECTIOUS) (PROTEINS)

MOSIN, V. G.; PASHININ, P. M.

C-reactive proteins in anginas. Vest. otorin. no. 3:19-23 '62.
(MIRA 15:6)

1. Iz kafedry mikrobiologii (nach. - prof. A. A. Sinitskiy)
Voyenno-meditsinskoy ordena Lenina akademii imeni S. M. Kirova,
Leningrad.

(TONSILS--DISEASES) (PROTEINS)

VINOGRADOV, N.I.; PASHININ, P.M.

C-reactive protein in rheumatism and rheumatoid arthritis. Terap.
arkh. 34 no.2:52-56 '62. (MIRA 15:3)

1. Iz kafedry vnutrennikh bolezney (zav. - prof. A.A. Kedrov)
Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta
i kafedry mikrobiologii (nach. - prof. A.A. Sinitskiy) Voenno-
meditsinskoy ordena Lenina akademii imeni S.M. Kirova.
(ARTHRITIS, RHEUMATOID) (RHEUMATISM)
(PROTEINS)

LASHNER, F.M.; MOSIN, V.A.

0-reactivity protein in influenza and acute infection of the respiratory tract. Zhurn. mikr. biol. i imun. 1976, 21, 10-13. No. 10.
(MIRA 18:6)

1. Vyenne-meditzinskaya orlena levina akademika 1976, 8 rova.

PASHININ, P. M.; KRASNOPEVTSEVA, O. S.

C-reactive protein in burn disease. Eksper. khir. no.3:58-61
'62. (MIRA 15:7)

1. Iz kafedry mikrobiologii (nach. - prof. A. A. Sinitskiy) i
kafedry termicheskikh porazheniy (nach. - prof. T. Ya. Ar'yev)
Voyenno-meditsinskoy ordena Lenina akademii imeni S. M. Kirova.

(BURNS AND SCALDS) (PROTEINS)

GRONIN, I.P.; MUKHIN, V.F.; OZERYANSKAYA, I.G.; PASHININ, P.M.;
SHUBIK, V.M.; GOLUBEV, D.B. (Leningrad)

Laboratory diagnosis of Botkin's disease. Klin.med. no. 185-
68 '62. (MIRA 18:3)

1. Iz kafedry mikrobiologii (nach. - prof. I.A. Sinitskiy)
Voenno-meditsinskoy akademii imeni S.M. Kirillova
i Leningradskoy infektionnoy bol'nitsy imeni S.P. Botkina
(glavnyy vrach M.M. Figurina).
(HEPATITIS, INFECTIONS)

IVANOV, A.I., kand. med. nauk; PASHININ, P.I.

The C-reactive protein test in acute dysentery. Kaz.med. zhur.
4:49-50 JI-Ag'63 (MIRA 17:2)

1. Kafedra infektsionnykh bolezney (nachal'nik - prof. P.A. Alisov) i kafedra mikrobiologii (nachal'nik - prof. A.A. Sinitskiy) Voenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova.

PASHININ, P.M.

C-reactive protein as an index of the activity of the inflammatory process in some diseases. Sov.med. 25 no.6:61-66 Je '61.

(MIRA 15:1)

1. Iz kafedry mikrobiologii (nachal'n'ik - prof. A.A.Sinit'skiy)
Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova.
(PROTEINS) (INFLAMMATION)

KUL'MATOV, M.K., prof.; VAKHABOVA, U.K., dotsent; PASHININ, P.M., assistant

Role of C-reactive proteins in the evaluation of tuberculous
processses. Sov.med. 25 no.1:104-107 Ja '61. (MIRA 14:3)

1. Iz kafedry propedevtiki vnutrennikh bolezney Samarkandakogo
meditsinskogo instituta imeni akad. I.P.Pavlov i kafedry mikro-
biologii Voenno-meditsinskoy ordena Lenina akademii imeni S.M.
Kirova.

(TUBERCULOSIS)

(BLOOD PROTEINS)

SLEPTSOV, A.P.; YAMPOL'SKIY, A.L.; PASHININ, P.H.

C-reactive protein in rheumatism in children. *Pediatrics* 37
no.4:27-30 Ap '59. (MIRA 12:6)

1. Iz kliniki pediatrii (zav. - deystvitel'nyy chlen AMN SSSR
prof. M.S.Maslov) i kafedry mikrobiologii (zav. - prof. A.A.
Sinitskiy) Voenno-meditsinskoy ordena Lenina akademii imeni
S.M.Kirova.

(RHEUMATIC FEVER, blood in
C-reactive protein (Rus))
(BLOOD PROTEINS, in various dis.
rheum. fever (Rus))

MUKHIN, V.F.; PASHININ, P.M.

Method of determining C-reactive protein by the reaction of
precipitation in capillaries. Lab. dolo 8 no.10:28-31 '62
(MIRA 17:4)

1. Kafedra mikrobiologii Voenno-meditsinskoy ordena Lenina
akademii imeni S.M. Kirova (nachal'nik - prof. A.A. Sinitskiy).

1. The first part of the document is a list of names and titles of the participants in the meeting.

2. The second part of the document is a summary of the discussion and the conclusions reached by the participants.

GREEN, J. J. (1910-1980), ...

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AVTHORS: Pashinin, P. P. , Prokhorov, A. M.

SOV/56-34-3-52/55

TITLE: The Measurement of the Spin-Lattice Relaxation-Time of Cr^{+++} in Corundum (Izmereniye vremeni spin-reshetchnoy relaksatsii Cr^{+++} v korunde)

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1958, Vol. 34, Nr 3, pp. 777 - 777 (USSR)

ABSTRACT: The knowledge of the times of the spin-lattice-relaxation in paramagnetic compounds is of special interest in connection with the elaborate investigations carried out recently with respect to the manufacture of molecular amplifiers with little noise, based upon paramagnetic substances. The authors determined the time of the spin-lattice-relaxation for the ion Cr^{+++} in the lattice of the corundum $\text{Al}_2\text{O}_3\text{-Cr}_2\text{O}_3$ for the electron transition $3/2 \rightarrow 1/2$. The measurements were carried out on the frequency of 9370 megacycles at the temperatures of $T = 300^\circ\text{K}$ and $T = 77^\circ\text{K}$ by observation of the saturation effect with the paramagnetic resonance absorption in the case in which the constant magnetic field is orientated parallel

Card 1/2

SOV/56-34-3-52/55

The Measurement of the Spin-Lattice Relaxation-Time of Cr^{+++} in Corundum to the axis of the crystal. The values of the time of the spin-lattice-relaxation $T_1 = 1.4 \cdot 10^{-7}$ sec for $T = 300^\circ\text{K}$ and $T_1 = 7 \cdot 10^{-4}$ sec for $T = 77^\circ\text{K}$, which were obtained here, lead to the following conclusion: The fundamental mechanism of relaxation within this temperature interval is the process of "combination scattering" which leads to a temperature dependence of the time of the spin-lattice-relaxation on the kind $T_1 \sim T^{-7}$. There are 2 references, 1 of which is Soviet.

ASSOCIATION: Fizicheskii institut im. P. N. Lebedeva Akademii nauk SSSR
(Physics Institute imeni P. N. Lebedev AS USSR)

SUBMITTED: December 28, 1957

Card 2/2

S/056/61/040/001/008/037
B102/B204

AUTHORS: Pashinin, P. P., Prokhorov, A. M.

TITLE: Measurement of the spin-lattice relaxation time in compounds with strong covalent bonds

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 40, no. 1, 1961, 49-51

TEXT: In connection with the fact that experimental studies of spin-lattice relaxation had led to the finding of anomalies which could not be theoretically explained, the authors of the present paper recently studied the spin-lattice relaxation on a simple system with two levels without hyperfine structure. As such a system, the Fe^{3+} ions in the compound $\text{K}_3\text{Fe}(\text{CN})_6$ with strong dilution by Co^{3+} ions was selected. Because of the strong covalent bond, the Fe^{3+} ion has the effective spin $S = 1/2$. Crystals with concentration ratios $\text{Fe}:\text{Co} = 1:1000$ and $2.1:1000$ were studied. The spectrum of this compound has already been previously studied (Ref. 6) at 20°K , and it was found that two magnetically non-equivalent Fe^{3+} ions exist. The spin-lattice

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Card 1/5

Measurement of the spin-lattice ...

S/056/61/040/001/008/037
B102/B204

relaxation is now being studied by the method of continual saturation and by the pulse method. Fig. 1 shows a block diagram of the spectroscope with which the spin-lattice relaxation time was measured by the pulse method. The klystron K_1 with a sequence frequency of 100-0.1 cps furnished pulses of 25 μ sec duration with an efficiency of 1.5 w, the klystron K_2 operated at 9400 Mc/sec. Fig. 2 shows an oscillogram of the relaxation curve of the Fe^{3+} ions. The spin-lattice relaxation time was for both concentrations at 4.2°K equal $T_1 = (4.9 \pm 0.4) \cdot 10^{-4}$ sec, the spin-spin relaxation times were $1.4 \cdot 10^{-8}$ and $0.66 \cdot 10^{-8}$ sec, respectively. By the method of continual saturation, the same values were obtained for both concentrations at 2.1°K: $T_1 = (1.6 \pm 0.2) \cdot 10^{-2}$ sec. From the data the conclusion is drawn that at helium temperatures, the spin-lattice relaxation does not depend on concentration, and is inversely proportional to the fifth power. The strong temperature dependence indicates that at helium temperatures, processes of second order play the main part. For the purpose of confirming the temperature dependence law, the line width at 0.21% concentration was measured within the range of 4.2-40°K and it was found that the T^{-5} -law holds up to about 40°K: $T_1 = 0.64 T^{-5}$ sec. Provisional studies (by the pulse method)

Card 2/5

Measurement of the spin-lattice ...

S/056/61/040/001/008/037
B102/B204

of the cross relaxation of the lines of the two non-equivalent ions produced no result, which is ascribed to the short cross relaxation time. Thereupon, the problem was studied whether a cross relaxation exists at all in the given case; the specimens used for this purpose had a Fe^{3+} ion concentration of 0.46%. It was found that a strong cross relaxation exists between the lines of the two magnetically non-equivalent ions. Also the relaxation processes in $\text{K}_3\text{Cr}(\text{CN})_6$ with a Cr^{3+} concentration of 0.24% were studied.

The relaxation curves at 4.2 and 2.1°K turned out to be representable by the sum of two exponents with highly deviating characteristic times: the time of the one exponent was temperature-independent and equal to $4.5 \cdot 10^{-4}$ sec, that of the other was proportional to temperature and at 4.2°K equaled $1.9 \cdot 10^{-3}$ sec, so that also in this case the existence of a cross relaxation was proven. The authors finally thank R. P. Bashuk and A. S. Bebchuk for placing the crystals at their disposal. There are 2 figures and 8 references: 2 Soviet-bloc and 7 non-Soviet-bloc. ✓

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR
(Institute of Physics imeni P. N. Lebedev of the Academy of
Sciences USSR)

Card 3/5

PASHININ, P. P.; PROKHOROV, A. M.

"ESR and Spin Lattice Relaxation of Yb^3 in CdF^2 "

Report presented at the First International Conference on
Paramagnetic Resonance, Jerusalem, Israel, 16-20 July 1962

33363

S/181/62/004/001/139/141
E104/B112

24.7900 (1155, 1144, 1163)

AUTHORS: Konyukhov, V. K., Pashinin, P. P., and Prokhorov, A. M.

TITLE: Study of the paramagnetic electron resonance and the optical spectrum of the Yb^{3+} ion in CdF_2

PERIODICAL: Fizika tverdogo tela, v. 4, no. 1, 1962, 246 - 248

TEXT: The paramagnetic electron resonance spectrum was observed at three frequencies in the centimeter and millimeter wave ranges. The spin-lattice relaxation time was measured at helium temperature. The Yb concentrations in CdF_2 single crystals reached 0.1% by weight. Two lines of the transition $^2F_{7/2} \rightarrow ^2F_{5/2}$ were detected in the far infrared of the Yb^{3+} absorption spectrum at 0.961 and 0.972 μ . The splitting of the ground state was estimated from changes in the g-factor of the spectroscopic splitting. The distance between the lowest ground state Γ_7 and the next level Γ_8 of the ground state was $21.1 \pm 0.4 \text{ cm}^{-1}$. The spin-lattice relaxation time T, in

Card 1/2

33995

3/056/62/042-001/000-048
B125/B108

24.7900 (1055, 1144, 1163)

AUTHORS: Korniyenko, L. S., Pashinin, A. P., Prokhorov, A. M.

TITLE: The spin-lattice relaxation time of the Ti^{3+} ion in crystals.

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 4
no. 1, 1962, 65 - 66

TEXT: The time of spin-lattice relaxation of the Ti^{3+} ion in crystals was measured with the method of pulsed saturation at liquid helium temperatures by means of an apparatus described by A. P. Pashinin and A. M. Prokhorov (ZhETF, 40, 49, 1961). Earlier estimates by L. S. Korniyenko, A. M. Prokhorov (ZhETF, 38, 1651, 1960) have yielded a general form of the temperature dependence of T_1 . A saturating pulse of 10 - 20 microseconds with a peak power of ~1 watt produced at 2°K a sharp sag in the epr line. The external magnetic field was parallel to the trigonal axis of the crystal. By applying the saturating pulses every four modulation (50 cps) periods of the magnetic field it was possible to observe the behavior of the sag in the line between two successive pulses. The first epr line corresponds to the application of the saturating pulse.

Card 1/3

33995

The spin-lattice relaxation...

01086/62, 042,001/01, 01-
R12: R108

g-factors may be far from one another, which renders their measurement relaxation interaction difficult. On the other hand, this interaction is very weak within the line owing to the small value of g_L . P. I. Kuznetsov and A. S. Rebenchuk are thanked for having prepared the samples, and G. I. Zverev for discussions. There are 1 figure and 2 tables.

ADDITION: Institut giaternoy fiziki Kosmopoliticheskoy fiziki, Universiteta, Institute of Nuclear Physics, Moscow State University.

001 11-27 July 24, 1961

4

Card 1/1

KONYUKHOV, V.K., PASHININ, P.P., PROKHOROV, A.M., CHAYMOV-MALKOV, V.Y.

Quantum laser with traveling wave.

Report submitted to the Third Intl. Symposium on Quantum Electronics,
Paris, France 11-15 Feb 1963

PASHININ, P. P.; PROKHOROV, A. M.

Spin-lattice relaxation of Yb^{3+} in CdF_2 . Fiz. tver. tela 5
no.1:359-360 Ja '63. (MIRA 16:1)

1. Fizicheskii institut imeni Lebedeva AN SSSR, Moskva.

(Paramagnetic resonance and relaxation)
(Ytterbium) (Cadmium fluoride)

PASHININ, P. P.

AID Nr 975-13 23 May

EPR OF Tm^{2+} IN CaF_2 (USSR)

Pashinin, P. P., A. M. Prokhorov, and V. T. Udovenchik. Fizika tverdogo tela, v. 5, no. 4, Apr 1963, 1221-1222. S/181/63/005/004/045/047

Fluorite single crystals obtained by vertical zone melting in a vacuum were used to study the EPR of Tm^{2+} in CaF_2 . The major portion of thulium entered the crystal lattice in the form of Tm^{3+} ions rather than Tm^{2+} ions; however, the Tm^{2+} ion concentration was increased by x-ray irradiation of the crystals. EPR was observed at 9250 Mc with temperatures of 4.2 and 60°K. The spectrum consisted of two superfine lines, separated by 228.8 ± 0.3 oe, whose position was independent of magnetic field direction. The superfine structure factor A for Tm^{169} was found to be $(367.5 \pm 0.5) \cdot 10^{-4} \text{ cm}^{-1}$, and the g-factor to be 3.452 ± 0.002 ; these values are very close to the theoretical. By using the two factors, along with the spin-orbital coupling factor obtained by Kiss, the nuclear magnetic moment μ_I of Tm^{169} was found to be -0.193 ± 0.003 . [BB]

Card 1/1